

4 VAC 25-130-785.25. Lands eligible for re-mining.

(a) This section contains permitting requirements to implement 4VAC25-130-773.15(b)(4). Any person who submits a permit application to conduct a surface coal mining operation on lands eligible for re-mining must comply with this section.

(b) Any application for a permit under this section shall be made according to all requirements of this subchapter applicable to surface coal mining and reclamation operations. In addition, the application shall:

(1) To the extent not otherwise addressed in the permit application, identify potential environmental and safety problems related to prior mining activity at the site and that could be reasonably anticipated to occur. This identification shall be based on a due diligence investigation which shall include visual observations at the site, a record review of past mining at the site, and environmental sampling tailored to current site conditions.

(2) With regard to potential environmental and safety problems referred in to subdivision (b)(1) of this section, describe the mitigative measures that will be taken to ensure that the applicable reclamation requirements of this chapter can be met.

~~(c) The requirements of this section shall not apply after September 30, 2004.~~

4VAC25-130-816.116. Revegetation; standards for success.

(a) Success of revegetation shall be judged on the effectiveness of the vegetation for the approved postmining land use, the extent of cover compared to the cover occurring in natural vegetation of the area, and the general requirements of 4VAC25-130-816.111.

(1) Statistically valid sampling techniques shall be used for measuring success.

(2) Ground cover, production, or stocking shall be considered equal to the approved success standard when they are not less than 90% of the success standard. The sampling techniques for measuring success shall use a 90% statistical confidence interval (i.e., one-sided test with a 0.10

alpha error). Sampling techniques for measuring woody plant stocking, ground cover, and production shall be in accordance with techniques approved by the division.

(b) Standards for success shall be applied in accordance with the approved postmining land use and, at a minimum, the following conditions:

(1) For areas developed for use as grazing land or pasture land, the ground cover and production of living plants on the revegetated area shall be at least equal to that of a reference area or if approved by the division, a vegetative ground cover of 90% for areas planted only in herbaceous species and productivity at least equal to the productivity of the premining soils may be achieved. Premining productivity shall be based upon data of the U.S. Natural Resources Conservation Service and measured in such units as weight of material produced per acre or animal units supported.

(2) For areas developed for use as cropland, crop production on the revegetated area shall be at least equal to that of a reference area or if approved by the division, crop yields shall be at least equal to the yields for reference crops from unmined lands. Reference crop yields shall be determined from the current yield records of representative local farms in the surrounding area or from the average county yields recognized by the U.S. Department of Agriculture.

(3) For areas to be developed for fish and wildlife habitat, recreation, shelter belts, or forest products, success of vegetation shall be determined on the basis of tree and shrub stocking and vegetative ground cover. Such parameters are described as follows:

(i) Minimum stocking and planting arrangements shall be specified by the division on the basis of local and regional conditions and after consultation with and approval by the state agencies responsible for the administration of forestry and wildlife programs. Consultation and approval may occur on either a program wide or a permit specific basis.

(ii) Trees and shrubs that will be used in determining the success of stocking and the adequacy of the plant arrangement shall have utility for the approved postmining land use. Trees and shrubs counted in determining such success shall be healthy and have been in place for not less than two

growing seasons. At the time of bond release, at least 80% of the trees and shrubs used to determine such success shall have been in place for at least three years. Root crown or sprouts over one foot in height shall count as one toward meeting the stocking requirements. Where multiple stems occur, only the tallest stem will be counted.

(iii) Vegetative ground cover shall not be less than that required to control erosion and achieve the approved postmining land use.

(iv) Where commercial forest land is the approved postmining land use:

(A) The area shall have a minimum stocking of 400 trees per acre.

(B) All countable trees shall be commercial species and shall be well distributed over each acre stocked.

(C) Additionally, the area shall have an average of at least 40 wildlife food-producing shrubs per acre. The shrubs shall be suitably located for wildlife enhancement, and may be distributed or clustered.

(v) Where woody plants are used for wildlife management, recreation, shelter belts, or forest uses other than commercial forest land:

(A) The stocking of trees, shrubs, half-shrubs and the ground cover established on the revegetated area shall approximate the stocking and ground cover on the surrounding unmined area and shall utilize local and regional recommendations regarding species composition, spacing and planting arrangement;

(B) Areas planted only in herbaceous species shall sustain a vegetative ground cover of 90%;

(C) Areas planted with a mixture of herbaceous and woody species shall sustain a herbaceous vegetative ground cover of 90% and an average of 400 woody plants per acre. At least 40 of the woody plants for each acre shall be wildlife food-producing shrubs located suitably for wildlife enhancement, which may be distributed or clustered on the area.

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(4) For areas to be developed for industrial, commercial, or residential use less than two years after regrading is completed, the vegetative ground cover shall not be less than that required to control erosion.

(5) For areas previously disturbed by mining that were not reclaimed to the requirements of this subchapter and that are mined or otherwise redisturbed by surface coal mining operations, as a minimum, the vegetative ground cover shall be not less than the ground cover existing before redisturbance, and shall be adequate to control erosion.

(c) (1) The period of extended responsibility for successful revegetation shall begin after the last year of augmented seeding, fertilizing, irrigation, or other work, excluding husbandry practices that are approved by the division in accordance with subdivision (c)(3) of this section.

(2) The period of responsibility shall continue for a period of not less than:

(i) Five full years except as provided in subdivision (c)(2)(ii) of this section. The vegetation parameters identified in subsection (b) of this section for grazing land or pastureland and cropland shall equal or exceed the approved success standard during the growing seasons of any two years of the responsibility period, except the first year. Areas approved for the other uses identified in subsection (b) of this section shall equal or exceed the applicable success standard during the growing season of the last year of the responsibility period.

(ii) Two full years for lands eligible for remining ~~included in permits issued before September 30, 2004, or any renewals thereof.~~ To the extent that the success standards are established by subdivision (b)(5) of this section, the lands shall equal or exceed the standards during the growing season of the last year of the responsibility period.

(3) The division may approve selective husbandry practices, excluding augmented seeding, fertilization, or irrigation, without extending the period of responsibility for revegetation success and bond liability, if such practices can be expected to continue as part of the postmining land use or if discontinuance of the practices after the liability period expires will not reduce the probability of permanent revegetation success. Approved practices shall be normal conservation

practices within the region for unmined lands having land uses similar to the approved postmining land use of the disturbed area, including such practices as disease, pest, and vermin control; and any pruning, reseeding and/or transplanting specifically necessitated by such actions.

4VAC25-130-817.116. Revegetation; standards for success.

(a) Success of revegetation shall be judged on the effectiveness of the vegetation for the approved postmining land use, the extent of cover compared to the cover occurring in natural vegetation of the area, and the general requirements of 4VAC25-130-817.111.

(1) Statistically valid sampling techniques shall be used for measuring success.

(2) Ground cover, production, or stocking shall be considered equal to the approved success standard when they are not less than 90% of the success standard. The sampling techniques for measuring success shall use a 90% statistical confidence interval (i.e., a one-sided test with a 0.10 alpha error). Sampling techniques for measuring woody plant stocking, ground cover, and production shall be in accordance with techniques approved by the division.

(b) Standards for success shall be applied in accordance with the approved postmining land use and, at a minimum, the following conditions:

(1) For areas developed for use as grazing land or pasture land, the ground cover and production of living plants on the revegetated area shall be at least equal to that of a reference area or if approved by the division, a vegetative ground cover of 90% for areas planted only in herbaceous species and productivity at least equal to the productivity of the premining soils may be achieved. Premining productivity shall be based upon data of the U.S. Natural Resources Conservation Service and measured in such units as weight of material produced per acre or animal units supported.

(2) For areas developed for use as cropland, crop production on the revegetated area shall be at least equal to that of a reference area or if approved by the division, crop yields shall be at least equal to the yields for reference crops from unmined lands. Reference crop yields shall be

determined from the current yield records of representative local farms in the surrounding area or from the average county yields recognized by the U.S. Department of Agriculture.

(3) For areas to be developed for fish and wildlife habitat, recreation, shelter belts, or forest products, success of vegetation, shall be determined on the basis of tree and shrub stocking and vegetative ground cover. Such parameters are described as follows:

(i) Minimum stocking and planting arrangements shall be specified by the division on the basis of local and regional conditions and after consultation with and approval by the state agencies responsible for the administration of forestry and wildlife programs. Consultation and approval may occur on either a program wide or a permit specific basis.

(ii) Trees and shrubs that will be used in determining the success of stocking and the adequacy of the plant arrangement shall have utility for the approved postmining land use. Trees and shrubs counted in determining such success shall be healthy and have been in place for not less than two growing seasons. At the time of bond release, at least 80% of the trees and shrubs used to determine such success shall have been in place for at least three years. Root crown or root sprouts over one foot in height shall count as one toward meeting the stocking requirements. Where multiple stems occur, only the tallest stem will be counted.

(iii) Vegetative ground cover shall not be less than that required to control erosion and achieve the approved postmining land use.

(iv) Where commercial forest land is the approved postmining land use:

(A) The area shall have a minimum stocking of 400 trees per acre.

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(v) Where woody plants are used for wildlife management, recreation, shelter belts, or forest uses other than commercial forest land:

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(B) Areas planted only in herbaceous species shall sustain a vegetative ground cover of 90%;

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(4) For areas to be developed for industrial, commercial, or residential use less than two years after regrading is completed, the vegetative ground cover shall not be less than that required to control erosion.

(5) For areas previously disturbed by mining that were not reclaimed to the requirements of this subchapter and that are mined or otherwise redisturbed by surface coal mining operations, as a minimum, the vegetative ground cover shall be not less than the ground cover existing before redisturbance and shall be adequate to control erosion.

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(ii) Two full years for lands eligible for reining ~~included in permits issued before September 30, 2004, or any renewals thereof.~~ To the extent that the success standards are established by subdivision (b)(5) of this section, the lands shall equal or exceed the standards during the growing season of the last year of the responsibility period.

(3) The division may approve selective husbandry practices, excluding augmented seeding, fertilization, or irrigation, without extending the period of responsibility for revegetation success and bond liability, if such practices can be expected to continue as part of the postmining land use or if discontinuance of the practices after the liability period expires will not reduce the probability of permanent revegetation success. Approved practices shall be normal husbandry practices within the region for unmined lands having land uses similar to the approved postmining land use of the disturbed area, including such practices as disease, pest, and vermin control; and any pruning, reseeding and/or transplanting specifically necessitated by such actions.

I certify that this regulation is full, true, and correctly dated.

George P. Willis, Director
Department of Mines, Minerals and Energy

Date: _____